

GPO Box 520  
Melbourne VIC 3001  
Telephone: (03) 9290 1444  
Facsimile: (03) 9290 1457  
[www.aer.gov.au](http://www.aer.gov.au)

Our Ref: 47269  
Contact Officer: Blair Burkitt  
Contact Phone: 03 9290 1442

12 October 2012

Eamonn Corrigan  
Australian Energy Market Commission  
PO Box A2449  
Sydney NSW 1235



Dear Mr Corrigan

**AER submission to the AEMC draft report - Power of Choice review of demand-side participation in the NEM**

Please find attached the AER's submission to the AEMC's draft report on its Power of Choice review.

If you would like to discuss further, please contact Mr Blair Burkitt on [blair.burkitt@er.gov.au](mailto:blair.burkitt@er.gov.au) or by telephone (03) 9290 1442

Yours sincerely



Chris Pattas  
General Manger  
Network Operations and Development



# **Power of choice review of demand-side participation in the NEM**

## **AER submission to AEMC draft report**

October 2012

# 1 Introduction

The Australian Energy Regulator (AER) welcomes the opportunity to comment on the Australian Energy Market Commission's (AEMC) draft report on its review of demand-side participation (DSP) in the NEM, the Power of Choice review.

The AER considers it fundamentally important to be looking at measures that can attempt to achieve a more efficient balance of demand and supply than currently exists in the National Electricity Market (NEM), noting particularly the impact that such an imbalance currently has on consumer bills and the underutilisation of network infrastructure. The AER also agrees with the AEMC that achieving a more efficient demand-supply balance will be beyond any single potential solution and will involve a complex interplay of factors across the entire energy supply chain. As such, the AER welcomes the AEMC's approach on these issues and supports the broad direction of the AEMC's recommendations which aim to improve this balance, by providing more interaction for either end of the demand-supply equation.

The AER responds to a number of issues raised in the AEMC's draft report, which principally concern the following broad categories of issues:

- Demand-side participation and the wholesale electricity market.
- Consumer information, education and engagement with regard to DSP.
- Network issues, including matters that can incentivise DNSPs to engage in demand management, network pricing and metering.

While supporting the AEMC's recommendations in relation to these issue categories, the AER makes a number of suggestions to ensure that DSP outcomes are as efficient as possible and deliver the lowest cost outcomes to consumers.

## 2 DSP in wholesale markets

### 2.1 Wholesale market mechanism

The AER recognises that customer participation in the NEM wholesale spot market for the purposes of DSP is relatively limited. At present this typically occurs only for large energy intensive customers, for circumstances such as planned outages/rescheduling of loads, or in response to spot market prices. As noted by the AEMC, this could in part be due to the generally unattractive and risky nature of current retail contracts that would expose the consumer to spot prices. Other issues could relate to whether retailers currently face incentives or competitive pressure to reflect more and varied wholesale market DSP options in their contract offerings to consumers, for both commercial/business and residential.

Given this current situation, the AEMC has recommended the introduction of a mechanism by which consumers can directly (or via their representative agents) participate in the wholesale market and receive spot price compensation for reducing/altering the timing of their electricity load. In principle, the AER supports the introduction of such a mechanism, which should open up an additional and potentially significant avenue for compensating the DSP actions of consumers, both commercial and residential. Further, the introduction of this mechanism might attract participants with new and innovative business models to encourage direct consumer participation in the wholesale market (e.g. demand-side aggregators of various sorts), which over the long term could provide some competitive pressure for the contract offerings of retailers in this regard.

While accepting the broad principle of the AEMC's proposed mechanism, the AER notes that the specific design and implementation of the mechanism will need to be carefully considered to avoid adverse and inefficient outcomes. The AER is aware that there have been problems with the introduction of similar mechanisms in other countries. For example, the AEMC's proposed mechanism is similar to those that the United States Federal Energy Regulatory Commission (FERC) has implemented in some US markets. The efficacy of the FERC's demand response mechanisms have been questioned by both economists and regulatory/market surveillance agencies.<sup>1</sup>

The AER understands that the main concerns regarding the US mechanisms centre around the determination of a baseline level of consumption that is then used as the basis upon which to calculate the level of compensation for the demand responses of consumers, and its potential to over or under compensate depending on its accuracy. In the US, concerns have been raised as to the potential of consumers to manipulate and inflate the calculation of the baseline, by either of the following:

- Increasing consumption during a non-demand response period that is used to calculate the baseline.

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<sup>1</sup> Hung-po Chao & Mario DePillis, *Incentive effects and network benefits of demand response regulation in the wholesale electricity market*, June 2012, available at Harvard Electricity Policy Group Website [<http://www.hks.harvard.edu>]; California ISO Market Surveillance Committee, Final – Opinion regarding FERC Order 745, Demand response compensation in organised wholesale energy markets, June 2011, available at [<http://www.caiso.com/2b97/2b97a0bb6ef70.pdf>].

- Switching off a generating unit at a customer site off during a non-demand response period used for baseline calculation.

The AER is aware that these concerns have extended beyond theoretical issues and that civil penalties are currently being proposed by the FERC against parties that have been alleged to have manipulated the calculation of consumer baselines.<sup>2</sup>

A contributing factor to the concerns in the US over baseline manipulation may be due to the lack of incentives on retailers and/or other market participants to monitor the consumption behaviour of consumers. Under the design of the US mechanisms, the retailer pays the market operator based on the actual level of demand consumed by its consumers, and revenues for demand response payments are recovered via a tariff smeared across all consumers. Under this approach, the retailer would be indifferent to any manipulation of the baseline level of consumption.

The AER notes that if the scheme as proposed by the AEMC increases the financial risk for retailers in situations where the consumer has inflated their baseline consumption level and a high price event occurs on the spot market for some other reason, that this might provide an incentive for the retailer to closely monitor the consumption patterns of their consumers. However, the AER also notes that increased financial risk for the retailer could simply lead to increased costs for consumers if these retailers pass on these risks in their retail tariffs.

It is unclear what the appropriate design approach should be to attempt to create incentives to minimise baseline manipulation in the first place, in addition to having compliance procedures of some form. The AER encourages the AEMC to consider whether its proposed mechanism can effectively alleviate some of the concerns experienced in the US and ensure that outcomes are efficient.

Given these and other implementation issues that could be faced by the Australian Energy Market Operator (AEMO) in overseeing its dispatch and forecasting processes, the AER welcomes the AEMC proposal to further consider the details and implementation of such an arrangement by a working group of market bodies.

## 2.2 AEMO demand forecasting

The AER is aware of the consequences of inaccurately reflecting actual demand responses in the NEM as part of AEMO's short and long term demand forecasting. Inaccurate forecasts significantly impact on the price signals sent to the market and affect both the nature and timing of generation operational and investment decisions and on the efficiency of the AER's approved allowances for regulated networks, which are dependent on the level of such forecasts. As such, the AER strongly supports the following AEMC proposed amendments to the National Electricity Rules (NER):

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<sup>2</sup> Rumford Paper Co, Docket No.IN12-11-000, Order to show cause & notice of proposed penalty, with Commissioner LaFleur concurring with a separate statement attached (July 17 2012); 140 FERC 61,030 (2012); Lincoln Paper and Tissue LLC, Docket No.IN12-10-000, Order to show cause & notice of proposed penalty, with Commissioner LaFleur concurring with a separate statement attached (July 17, 2012); 140 FERC 61,031 (2012); Competitive Energy Services LLC, Docket No.IN12-12-000, Order to show cause & notice of proposed penalty, With Commissioner LaFleur concurring with a separate statement attached (July 17, 2012).

- Clarify AEMO's role in developing both long and short term demand forecasts, including the verification and estimation of actual DSP in the NEM. These will assist in providing accurate price signals to the wholesale market over various time frames including pre-dispatch. Such a role will also assist in the preparation of longer term aggregate and connection point forecasts that are used as inputs to the AER's distribution and transmission determination processes.
- Place a general obligation on all market participants that, upon request they are to provide data to AEMO to support its expanded demand forecasting role. The AER recognises that for AEMO to accurately forecast demand responses, access will be required to information from consumers on their likely price sensitive demand responses and on actual demand responses in order to verify its forecast models. This may require AEMO to have greater interaction with end-use consumers and may require access to confidential commercial supply arrangements between consumers and retailers. Appropriate arrangements governing access and transfer of such potentially sensitive information will need to be considered, but is considered by the AER to be necessary to ensure the accuracy of demand forecasts (for the wholesale market and use of the network) and provide accurate price signals to the market.

## 3 Provision of advanced metering

### 3.1 Meter roll-out

The AER recognises that metering technology will play a critical role in enabling efficient consumer behaviour. The ability to pass on an efficient network price signal will require technology capable of measuring consumption in time intervals. Further, the communication functions that might be added to the energy measurement component of these meters will determine the extent to which a consumer can participate in a range of non-tariff based demand response (e.g. direct load control or controlled charging for electric vehicles). To this end, the AER supports the AEMC's recommendations which seek to increase the availability of such meters by requiring their installation in certain circumstances and for certain consumer categories. Importantly, specifying standard meter functionality and communication features of these meters is a necessary part of enabling the effective and efficient provision of energy management services across the customer base.

### 3.2 Contestability in metering and related services

#### 3.2.1 Interval meter roll out model

The AEMC has considered two possible models by which interval meters can be rolled-out, indicating its preference for the 'contestable model' over the 'monopoly model'. Further, the AEMC has set out a number of conditions that it considers should be implemented regardless of which model is ultimately adopted. The AER generally supports the contestability based model, where this model can be delivered at lower cost and improves meter service offerings. However, the implementation of this model should have regard to a number of possible factors, including scale economies associated with a more concentrated meter roll out and consumer/retailer lock-in issues (e.g. metering technology compatibility, meter ownership and metering contracts)

As acknowledged by the AEMC, there could be economies of scale in the provision of metering and related services, as with any information technology infrastructure. As such, in some circumstances a contestable roll out of meters could lead to losses in economies of scale where multiple parties are each individually rolling out this infrastructure in the same areas and competing for such services. The AER believes that this issue should inform the arrangements for any interval metering roll out. There could be other approaches to the model proposed by the AEMC which places retailers with a central role in meter provision, but provides for the ability for other parties to also provide meters if desired by consumers. One possible variant could be to undertake a competitive tender process for the exclusive provision of meters by the successful tenderer within a designated area.

With any process that is subject to competition, some regard will need to be had to the need for technology compatibility (i.e. common metering and meter communication specifications). Specifically, meter functionality will need to be compatible with any additional features that may be desired by consumers, or to perform various DSP activities over time. While the AER notes the AEMC has had regard to standard technology specification issues in its meter roll out requirements, it considers further regard should be had to the details of these

specifications so that metering costs are minimised for consumers. In this regard, considerable work has already occurred through SCER on national AMI specifications.

The AEMC has raised the issue regarding the need to prevent consumers from being locked into their existing retail contracts which may limit their ability to seek out new or alternative DSP offerings. This issue concerns the actual costs of interval meters and how these are included in a customer's retail contract. The AER supports the AEMC proposal that these metering costs should be separated from the energy costs in retail contracts. The AER agrees that consumers should be allowed to retain their existing interval meter even if they switch retailers. There could be various ways in which this is implemented, but the AER would support an arrangement which required:

- a consumer's new retailer to cover the cost of the former retailer with regard to the meter; and
- this new retailer then effectively transitions these remaining costs into the contracts it offers to the consumer.

Under such an approach, the AEMC might need to consider the need for a standard methodology for determining the remaining costs of the meter to facilitate the transfer between the old and new retailers.

The AER considers that this approach should not only alleviate any 'locking-in' concerns for consumers, but also provide some incentive for retailers or other meter providers to spread the cost of the meter over a longer period and thereby not discourage consumers from purchasing such a meter given initial price shocks. The AER recognises that it will be up to the meter provider to determine how best to charge for the provision of meters and that there are potentially innovative ways of bundling the provision of the meter together with other services. The regulatory arrangements pertaining to metering should attempt to not constrain the development of such potentially innovative offerings.

### **3.2.2 Other issues**

#### **Standard exit fees**

The AEMC has identified that as consumers either decide to change their accumulation meters to interval meters (or manually read interval meters to remotely read interval meters), or are required to do so, regard will need to be had to an appropriate way for the Distribution Network Service Provider (DNSP) to recover the remaining value of their meters which will be 'stranded' under such circumstances. The AER supports either of two approaches depending on which might better minimise price shocks to consumers, including:

- *Applying an accelerated rate of depreciation:*
  - This approach might be more relevant for DNSP led meter roll outs and it would be necessary to avoid consumers needing to pay for two meters. The AER notes that this approach might not be practical for incremental replacement as would occur under the AEMC's gradual phasing approach to introduce interval meters.



- *Applying a standard exit fee:*
  - One method for doing so could be such as adopted by the AER in its determination for the South Australian DNSP, ETSA Utilities (now SA Power Networks).<sup>3</sup> This approach included an operating expenditure recovery component for the cost of processing a customer termination, and a capital expenditure component to recover the cost of the meter. The capex component reflected the average written down capitalised value of a type 6 meter, determined on the replacement cost of the meter. Further, consideration should be given to whether the fee should be a flat fee for the entire customer base, or whether it should be customer specific. This will be an important issue as the exit fee could be significant and could impede the exercising of consumer choice in this regard.

### **DNSP activity in a contestable model**

The AEMC's contestable model places retailers with initial responsibility for the provision of meters, with this role available to other parties should consumers decide otherwise. The AER notes that within this model, DNSPs are also permitted to roll out meters where this forms part of their demand management activities in their network areas. The AER supports this approach on the condition that metering and related services should be unbundled from the distribution use of system charges (DUOS) of these regulated businesses, and that the AER can effectively ring-fence these services from regulated activities.

These conditions are consistent with those that the AEMC has considered to be required under either roll out model. In relation to these conditions, the AER notes that its intended approach to the NSW and ACT distribution determinations is consistent with the AEMC's recommendations. The AER is proposing to unbundle meter costs from DUOS, and provide for contestability in the provision of energy management services of meters. Those services that the AER considers should be contestable, appear to align with the AEMC's stated term, "non-metering functions".<sup>4</sup> However, the AER considers that greater clarity might be required as to the exact services that fall under the AEMC's stated term to ensure that there is no overlap with the services that the AER is considering to retain within DUOS for its upcoming NSW and ACT determinations. The AER is intending to retain services under the category of "energy data services" as defined in the NER within DUOS.<sup>5</sup> These essentially refer to services required for AEMO to undertake its settlement functions, including the collation of energy data, processing of energy data in the metering installation database and storage of energy data. The AER would welcome the opportunity to discuss these aspects further with the AEMC regarding the status of these services.

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<sup>3</sup> AER, *South Australia distribution determination 2010-11 to 2014-15*, May 2010, Chapter 17: Alternative control services.

<sup>4</sup> AEMC, *Power of Choice supplementary paper – Principles for metering arrangements in the NEM to promote installation of DSP metering technology*, 6 September 20120, pp.1-60

<sup>5</sup> These are referred to in clause 7.11 of the NER.

## 4 Efficient price signals

### 4.1 Introducing cost reflective network pricing

As mentioned previously, the AER recognises that there is no single solution to encouraging an efficient demand and supply balance in the NEM. However, one of the most important measures is to provide consumers with prices that signal the costs of transporting energy. Efficient price signalling – that is, cost reflective pricing (that reflects the impact of peak demand on network costs), will allow consumers to compare the benefits of consumption to the costs of service provision and make informed consumption decisions. This will not only provide impetus for consumers to alter their behaviour but provide them with an avenue for receiving benefits commensurate with their behavioural changes. To this end, the AER broadly supports the AEMC's approach to introduce cost reflective network tariffs in the NEM. The AER notes the AEMC has referred to these as time-varying (time of use, or TOU) network tariffs, but that the intention is to refer to any tariff that is dynamic in nature (as opposed to flat tariffs) and reflects efficient network costs.<sup>6</sup>

The AER recognises that the AEMC is yet to decide on the exact design of the cost reflective tariff that will be mandated for certain categories of consumers, and used to transition other consumers. Cost reflective tariffs and TOU tariffs can refer to a broad range of tariff structures that attempt to reflect peak (or other) costs on networks. In this context, the AER considers that the preferable approach would be to select a cost reflective tariff that is capable of sending a sufficiently strong signal of the underlying cost of electricity usage at peak times to elicit a sufficiently strong behavioural response. In other words, consumers are likely to need a significant change in their network tariff structure to alter their consumption behaviour. This appears to be an important requirement both in the current environment, and into the future as new energy intensive and potentially peaky appliances emerge, such as electric vehicles.

In regard to the approach to introduce cost reflective network tariffs, the AER considers the AEMC's gradual phasing approach which seeks to mandate more cost reflective network tariffs only for larger consumers and transition medium-large consumers, but also allows these and smaller consumers to exercise their preferences on an opt out or in basis, is feasible, practical and measured. For many consumers, pricing that varies by time will be novel, and reflect a new way of thinking about their usage patterns. As also considered by the AEMC and discussed later in this submission, education and information is required to ensure that consumers are able to sufficiently understand these concepts and know what to do in response. As such, there is merit in considering a gradual phasing in approach to allow these other processes to be established.

The AER considers that there could be alternatives to the approach proposed by the AEMC that might warrant further consideration, noting however, that attempting to address some of these issues could add potential complications and administrative complexity, as follows:

- Some smaller consumers could see significant value in switching to cost reflective pricing where they currently contribute relatively less to peak demand, as noted by some

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<sup>6</sup> This interpretation was confirmed by the AEMC at the public forum on the Power of Choice review, 3 October 2012.

consumer groups in relation to housing assistance residences. As such there might be value in transitioning these consumers onto such tariffs more quickly.

- The assumption that larger residential consumers are in fact more price responsive might not hold, as recognised by the AEMC. This has also been a common criticism of the merits behind the inclining block tariff approach that is used widely by DNSPs.
- There might be merit in transitioning all consumers who currently have interval metering to a cost reflective tariff, regardless of which size category they fall under.

Finally, the AER notes that the exact measure used to segment consumers into their size categories is still to be defined by the AEMC. This decision will need to recognise the need for consistency with other regulatory processes including the consumer size categories under the network connections framework, and might need to consider the desirability of capturing consumers with significant and potentially peaky loads, such as electric vehicles.

## 4.2 Network pricing principles and consultation

### 4.2.1 Reviewing the pricing principles

The distribution pricing principles in the NER guide the process by which DNSPs convert the AER's approved revenue allowances into network tariffs. The AEMC has indicated that amendments will be required to these principles in order to effectively implement cost reflective pricing. The AER notes that the AEMC has not detailed its intentions on the re-design of these principles but has sought the views of interested parties.

The AER supports a review of the distribution pricing principles. With regard to the AEMC's proposal on introducing cost reflective tariffs, the AER agrees with the AEMC that currently, these principles provide the DNSP with such a significant degree of discretion that tariffs may not necessarily reflect the impact that peak demand has on network costs. The AER recognises that currently the willingness of some DSNP's to offer cost reflective tariffs has been affected by the limited availability of interval metering and consumer understanding of time varying or other cost reflective tariffs and associated DSP issues. The AER notes that where metering has been available, particularly for larger commercial customers, some DSNPs have been trialling various approaches to cost reflective tariffs.

However, the AER considers that reforming the pricing principles to require that tariffs be reflective of peak demand impacts, will ensure that efficient tariffs are offered by all DNSPs. The AER considers that these principles will need to deliver a balance between requiring the consideration of peak demand impacts on network augmentation in network tariffs, and the need to ensure that DNSPs are able to innovate in their tariff offerings and develop tariffs that best suit their customers' needs and the circumstances of their network. For example, for particular customers of some DSNPs, cost reflective tariffs might be in the form of capacity based tariffs and not TOU tariffs.

The AER considers that a review of the distribution pricing principles not only presents an opportunity to promote more efficient network tariffs, but also consider other tariff based issues more broadly. The AER considers that the review might consider issues such as:

- Equity issues between consumers – that is, similar treatment of consumers with similar load profiles.

- The possible need to ensure revenue stability for the DNSP.
- The need to minimise price volatility for consumers in transitioning to cost reflective tariffs.
- Ways of managing the risk to vulnerable consumers (However, there are other means by which consumer hardship issues can be addressed – see below).

The AER comments further on the need for review of the pricing principles later in this submission in the context of the form of regulatory control being applied.

#### **4.2.2 Network pricing consultation**

The current distribution pricing rules require DNSPs to submit to the AER a pricing proposal two months before the commencement of the relevant regulatory year (in the first year of a regulatory control period, the requirement for submission is 15 business days after publication of the AER's distribution determination). The AER is required to review the pricing proposal and ensure that it complies with the pricing principles. The NER require the AER to publish a DNSP's pricing proposal on its website as soon as possible after it is submitted. However, the NER does not require the AER or DNSP to consult with stakeholders about the pricing proposal and there is insufficient time to do so. The NER do not require the AER to make its decision on a pricing proposal by a specified date but require DNSPs to publish information about its approved tariffs on its website 20 business days before the commencement of the relevant regulatory year or as soon as practicable.<sup>7</sup>

The AEMC has indicated that it believes that there would be value in creating a more formal review role for retailers and consumer groups in the network tariff setting process. It considers that the annual pricing review process should allow a period of consultation with external stakeholders on the structure of the network tariffs. The AEMC notes that this will require changes to the current annual tariff setting process to allow for such consultation and for the AER to monitor that the revised pricing principles are being applied. The AEMC has therefore sought comments on the appropriate time period for stakeholder consultation on distribution network pricing proposals.

The AER also notes that in September 2012, the Independent Pricing and Regulatory Tribunal (IPART) of New South Wales lodged a rule change proposal with the AEMC concerning the timing and consultation arrangements associated with the distribution pricing rules. IPART's proposed changes seek to bring forward the pricing approval process by 1 month and provide for improved consultation around the development and amendment of each DNSP's Statement of Expected Price Trends document. IPART considers that its rule change would allow customers to better understand any proposed changes and to provide retailers with greater opportunity to understand the impact of any network charges on their pricing strategies and to develop their retail prices earlier.

The AER is generally supportive of proposals to improve the existing pricing principles, consultation arrangements and timing of the pricing review process. However, the AER considers it prudent for proposed changes to these elements of the pricing rules to be considered in a holistic way as part of a review of the entire pricing provisions in the NER.

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<sup>7</sup> The distribution pricing rules are set out in Part I of the NER.

The AER agrees that there is a need for improved consultation arrangements. However, while supporting increased consultation, the AER considers that AEMC's proposal for stakeholder consultation during the pricing review process itself may not be practically possible, given that effective consultation would require at least several weeks and also IPART's current proposal that the pricing review be brought forward by one month to assist retailers squeezes this timeframe further.

The AER considers that an approach similar to IPART's proposed consultation arrangements may be more appropriate. Such arrangements could involve the approval of a tariff strategy as part of a DNSP's distribution determination, where consultation would occur. The tariff strategy document could only be amended following a consultation process involving DNSPs and their customers and agreed by the regulator, taking into account the outcomes of such a process. As per IPART's proposal, the AER would be required to develop a guideline setting out what the tariff strategy is to contain and what consultation must be undertaken by the DNSP in amending the document. The initial tariff strategy would be considered by stakeholders through the existing consultation arrangements as part of a distribution determination. As noted above, the AER considers all these aspects should be considered in a single rule change proposal.

### **4.3 TOU tariffs and consumer hardship**

Transitioning to an environment where prices faced by consumers reflect the impacts of peak demand and therefore might vary by TOU, could present a variety of impacts for different types of consumers, particularly in the short term. That is, while cost reflective pricing might decrease prices over the long term if consumption decisions alter, in the short term, some consumers who use a high proportion of energy at peak times and might have limited capacity to alter their consumption over the day will face price increases. This can lead to further financial difficulties, affecting consumers' ability to pay their energy bills. Vulnerable and disadvantaged consumers, particularly those at home during the day, such as the unemployed, those with a disability and older consumers may be affected. The AER supports the AEMC's view that such issues need to be addressed through more direct mechanisms which avoid pricing distortions.

The AER supports the AEMC's proposal to not require smaller consumers to switch from their current flat network tariffs. Further, given that energy is an essential service, the AER agrees with the AEMC's recommendation that Governments might need to review their energy concession schemes to ensure that they are appropriately targeted and provide an appropriate level of protection for vulnerable consumers. Government initiatives appear to be the best means of assisting vulnerable consumers, while maintaining the integrity of the economic regulatory framework of the NEM.

The AEMC has also suggested that the National Energy Customer Framework (NECF) hardship program indicators be extended to include how hardship customers are managing the transition to TOU or cost reflective prices. Currently, the hardship program indicators do not allow for an assessment of the impacts of TOU pricing on hardship consumers. The AER notes that there is potential to develop additional indicators to understand how retailers are assisting their hardship customers who are on TOU tariffs as part of their hardship programs. Further consultation would be required to amend the hardship program indicators and ensure that appropriate measures were developed.

## 5 Consumer information, education & engagement

### 5.1 Consumer information

Enabling efficient consumer decisions will be dependent on more than just effective price signals and the technology used to deliver these signals. The AER recognises that consumers will require access to their own consumption data to understand their current usage patterns, and education to understand how their decisions impact on their bills and what measures (tariff or non-tariff based) are available to alter the timing or nature of their consumption. As such, the AER welcomes the AEMC's investigation of what regulatory measures might be required to facilitate these outcomes, as part of a necessary package accompanying the shift to TOU/cost reflective pricing.

#### 5.1.1 Conduit for accessing consumption data

In regard to the arrangements governing access to the consumption data of consumers, the AER supports the AEMC's recommendations which aim to provide greater flexibility over who the customer can assign to access their information. As noted earlier in this submission, third party DSP providers could play an increasingly important role in a cost reflective pricing environment, so any moves that facilitate the ability of parties assigned by consumers to access the data of their clients is supported. However, the AER considers that the AEMC might need to broaden its recommended reforms to the NER to sufficiently address these concerns. These recommendations need to sufficiently capture situations, including where one of these parties might be the DNSP.

As noted in the AER's submission to the AEMC's directions paper, a number of participants, particularly DNSPs, have concerns as to whether they would be in non-compliance with the NER if they were to grant residential consumers access to consumption data directly, without seeking the consent of the retailer. A DNSP might seek to provide data directly in a number of situations, particularly where the key conduit for the flow of information, the meter, is provided by a party other than a retailer. This is particularly the case in Victoria where DNSPs have rolled out smart meters and therefore, have the infrastructure to facilitate consumer access to the detailed information from these meters. The AER notes that the AEMC has attempted to differentiate between live energy and metering data provided by advanced meters directly to in-home displays (and other devices) and validated energy and metering data. However, the AER is aware that in addition to in-home displays, some Victorian DNSPs provide validated energy and metering data to customers through web portals.

This situation becomes further complicated when regard is had to the range of varied and perhaps misaligned legislative obligations that are currently placed on market participants, regarding the provision of energy and metering data to consumers. As noted by the AEMC, section 86 of the National Energy Retail Rules (NERR) places obligations on DNSPs to provide information on a customer's energy consumption directly to that customer. This obligation might involve the direct provision of energy and metering data to the customer, contrary to the current requirements under clause 7.7 of the NER which place the retailer as the primary conduit of such data, with customer access dependent upon requests to the retailer. The AER is also aware that other jurisdictional arrangements such as metering and retail codes, might place further obligations on distributors (or metering data providers) and

retailers regarding the provision of data to consumers, without specifying a hierarchy of legislation or legal obligations.

Therefore, while the AER generally supports the AEMC's goal of providing flexibility for customer assigned parties to access the consumption data of their clients in an administratively simplified manner, the AEMC's recommendations need to be flexible enough to ensure that the consumer can in fact assign any party that best suits their needs.

### **5.1.2 Requirements governing consumer requests**

The AER notes that the form in which consumption information is provided when requested can impact on the competitive ability of different participants to make effective use of that information for the benefit of DSP. As such, the AER supports the AEMC's recommendations that the NER be amended to provide some clarity and procedure to the form of provided consumption data, and any other process issues such as applicable fees and timeframes. The AER does not have a firm view on the minimum standard form and structure of energy and metering data. However, given the goals of facilitating DSP and introducing tariffs that might be time variant, some regard might be had to whether the information format should be more prescriptive for certain categories of consumers (e.g., into time of day, week and season), or permit ultimate users of the data to re-assemble the data as seen fit.

If a standard format for data can be established, it would appear reasonable that a fee be attached to non-standard data requests. Criteria would need to be considered to oversee this process and to provide a basis upon which a reasonably cost reflective fee can be charged.

### **5.1.3 Broader educational information**

The AEMC has also proposed a range of measures to facilitate the provision of broader consumption data, including:

- requiring AEMO to publish market information on representative consumer sector load profiles, and,
- requiring retailers to provide residential consumers with their electricity consumption load profile where these consumers don't have interval meters.

The AER accepts that a central repository of representative load profiles, such as an 'information hub', as is currently being considered by Governments in other policy fora, might assist third party providers, or be packaged into useful tools to improve consumer understanding of usage patterns. However, while retailers are certainly well placed to assist consumers in understanding this complex field, the AER considers that there might be limited value in the proposed requirement on retailers, given that the data would not be based on a consumer's actual consumption data. Information on net system load profile for a consumer's distribution area might not assist the consumer in better understanding their own usage patterns or to shift their demand, and might in fact be misleading.

## **5.2 Third party engagement**

The AER notes that consumers will be protected in their dealings with providers of DSP energy services under existing consumer protection legislation such as the Australian Consumer Law. Only if particular aspects of these services are found to be particularly

problematic or potentially detrimental to consumers should additional specific regulation be considered.

The AEMC's draft report recommends that the NECF be clarified to clarify the arrangements that apply to third parties providing DSP energy services. The AER considers that the NECF in its current form would not apply to third parties providing such services. Also, as some DSP energy services might target commercial and industrial electricity users who are not subject to the protections of the NECF, the AER is of the view that such arrangements might be better implemented via primary legislation or the NER rather than via the NECF.

This issue also involves a range of policy decisions on matters such as, for example, whether service providers will be required to participate in energy Ombudsman schemes. These matters cannot be addressed in regulatory guidelines, and it would therefore be preferable for at least some aspects of the regulatory arrangements to be addressed in primary legislation or the NER rather than in AER guidelines prepared to meet AER responsibilities under the NECF.

Further, the AER does not consider it appropriate to use the retail exemption guidelines to address DSP issues, largely because the retail exemption guidelines can not address the provision of "energy services" where a sale of energy is not occurring. The National Energy Retail Law (NERL) provisions that underpin the retail exemption guidelines are designed to address energy on-selling, and the factors which the AER is required to take into account under the NERL exemption provisions are matters that are relevant to on-selling rather than other energy services. The AER has similar reservations over the treatment of electric vehicles, as set out in the AER's submission to the AEMC's electric vehicles review.<sup>8</sup>

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<sup>8</sup> AER, *Submission to AEMC draft advice report – Energy market arrangements for electric and natural gas vehicles*, 2 October 2012, pp.1-2.



## 6 Network Issues

The AER recognises that DNSPs, as the parties responsible for building network infrastructure play an important role in addressing the efficiency of the demand/supply balance in the NEM. The AER also supports the AEMC's earlier finding that the key factors impacting on this decision concern the incentives inherent in the regulatory framework in the NER and not the presence or design of a specific incentive scheme for demand management. The AEMC's investigation has now found there are various factors in the NER that could be presenting barriers to efficient DSP. These principally concern the way different types of expenditures are treated in the regulatory framework, and the arrangements regarding how DNSP's structure their network tariffs. The AER broadly supports the AEMC's findings and its recommendations which seek to address barriers to DSP. As set out earlier in this submission, one of the key measures is to reform the way DNSPs structure their tariffs.

### 6.1 Incentive schemes for demand management

The AEMC has determined that some potential barriers to DNSPs engaging in DSP inherent in the NER warrant amendment to the AER's existing Demand Management and Embedded Generation Connection Incentive Scheme (DMEGCIS). While the AER continues to be of the view that the presence or design of incentive schemes for demand management are not key to unlocking more DSP activity on the part of DNSPs, the AER supports the need for a more comprehensive demand management incentive scheme along the lines proposed by the AEMC. The AER has for some time refrained from making any material changes to its current scheme while various DSP reviews have been ongoing.

#### 6.1.1 Capturing market benefits

The AER is aware that one of the factors that could affect a DNSP's decision to engage in DSP concerns how the business expects DSP expenditure to be assessed by the AER, including how stated benefits are valued in expenditure assessments, the RIT-D and the DMGCIS. Further, the AER also recognises that DNSPs have often cited concern over the possible free-rider effects resulting from any DSP action they undertake, in that in some circumstances DSP projects implemented by DNSPs can have broader market effects in addition to network effects. While other market participants stand to benefit from these broader effects, the DNSP is unable to capture a share of those positive benefits through the regulatory processes. To address this issue, the AER supports the AEMC recommendation that the DMEGCIS be amended to ensure that where DSP projects implemented by DNSPs deliver sufficient wider market benefits (additional to avoided network costs) that they be allowed to earn a share of those additional market benefits.

The AER considers that this reform effectively ensures consistency in regulatory approaches, given that the AEMC has under the proposed Network Planning and Expansions Framework package, considered it appropriate for DNSPs to have regard to broader market benefits under its Regulatory Investment Test for Distribution (RIT-D). The AER agrees with the AEMC that there will be a need to establish a consistent method to the valuation of market benefits to ensure consistency between these various processes. The AER also recognises that this is likely to be a potentially difficult and data intensive task, reinforcing the need for the AER to establish a consistent method to provide guidance to DNSPs prior to their regulatory proposals. The AER notes that is more difficult to assign an appropriate portion of market

benefits than merely identifying the existence of such benefits as a means of approving an expenditure program. The AER welcomes the AEMC's recommendation that developing a standard method will be a matter for which the AER will have discretion to consider, consistent with the AER's responsibility to develop guidelines for the RIT-D, in addition to the AER's discretion on whether to introduce a demand management scheme.<sup>9</sup>

### **6.1.2 Retaining cost savings**

The AER notes that where a DNSP implements a DSP project during a regulatory control period which effectively defers or negates the need for a capital expenditure (capex) investment, that DNSP is allowed to retain the potentially significant savings. However, the retention period will depend on the number of years left until the end of the regulatory period. This is due to the fact that the AER has currently not applied an efficiency savings mechanism to capex of the sort that applies to operating expenditure. The AER accepts that this could present a potential barrier to DNSPs investing in DSP. As such, the AER supports the AEMC's consideration of a possible approach to mitigate this concern, by allowing DNSPs to retain the value of capex savings for a sufficient number of years, where these savings are derived by a DSP project that delays or defers the need for capex.

The AEMC proposes that one approach would be to introduce an additional mechanism to the DMEGCIS, that is, a specific benefits sharing mechanism for DSP. The AER notes that such a mechanism could be implemented. However, as acknowledged by the AEMC, under the changes proposed to the Chapter 6 network regulation rules in the NER, the AER would have the capacity to develop incentives schemes that apply to all capex. Therefore, the AER considers that its decision on whether to apply a sharing mechanism specific to DSP will depend on how it applies a scheme to all capex more broadly, and the form that the scheme takes. The AER welcomes the AEMC's support for this approach.

### **6.1.3 NER guidance on scheme development and monitoring**

To guide the AER's implementation of the AEMC's proposed reforms and effectively re-design the incentive scheme for demand management, the AEMC has proposed that a number of principles be included in the NER. The AER supports the inclusion of principles into the NER as these will clarify the scheme's intended scope. Of the principles proposed, the AER only notes that undertaking a quantitative assessment of a consumer's lost value from not consuming at peak times could be a difficult exercise given the theoretical nature of this concept and the fact that this value will differ for different consumers. In dealing with this and other issues that could arise as the AER monitors experience with the application of the scheme and broader market developments, it is important that the principles recommended by the AEMC provide appropriate discretion for the AER to adapt its approach over time. As such, the principles should be matters that the AER could 'have regard to', rather than 'must' include.

In monitoring the on-going performance of the re-designed scheme, the AEMC has also suggested that it will intend to further consider the possibility of introducing performance indicators. The AER supports the AEMC's position that the demand management incentive scheme should deliver a net benefit such that the scheme should be designed to reward

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<sup>9</sup> As set out in Clause 6.6.3(a) of the NER.

exceptional performance and not just business-as-usual efforts of DNSPs. However, the AER would prefer to have sufficient discretion and flexibility to determine how best to monitor whether the scheme delivers on its intention, rather than having to apply a prescriptive and administratively complex and data intensive approach. In monitoring whether the scheme delivers on its intention, the AER would have regard to the additional NER principles proposed by the AEMC.

#### **6.1.4 Demand management innovation allowance**

Given the proposed amendments to the DMEGCIS, the AEMC has questioned whether there is merit in separating out the current demand management innovation allowance (DMIA) from the incentive scheme given its revised purpose.<sup>10</sup> The AEMC has also questioned whether it is necessary to re-design the innovation allowance to better capture long-term benefits, and introduce principles to guide any such re-design. The AER considers it necessary to exercise caution in regard to separate allowances for innovation and research and development efforts of regulated businesses. As noted by the AEMC, the costs of such allowances are borne by electricity consumers. In relation to demand management, the AER applied a modest innovation allowance (DMIA) to provide some incentive for DNSPs to consider demand management alternatives to network augmentation, by building capabilities and capacity in the area of demand management and overcoming any cultural/business barriers that might have existed on the part of DNSPs. However, the AER considers that there are a number of factors that would mitigate the continued need for a demand management innovation allowance:

- Demand management efforts of DNSPs will be incentivised via a combination of reforms, from changes to the network pricing arrangements, consideration of appropriate forms of regulatory control and reforms to manage perceived risks of DSP (both of which are discussed later in this submission), and importantly via a higher powered incentive scheme that will provide the potential for additional and greater rewards for DNSPs.
- As part of various regulatory processes, particularly the demand management requirements within the proposed Network Planning and Expansions Framework, DNSPs will be required to consider demand management alternatives to network augmentation in their network planning processes. Further, as these processes will allow for greater stakeholder engagement, should a DSP not put forward an efficient demand-side alternative, other parties would have the opportunity to do so. Further still, the reporting requirements accompanying the Framework will ensure that there is an ever growing body of knowledge across the NEM on potential DSP alternatives to network investments.

## **6.2 Managing DSP risks**

The AER notes that it is commonly cited that DNSPs might be discouraged from undertaking DSP activities, given the current potentially risky or perceived risky nature of DSP. These risks refer to both cost and service standards impact forecasting, and the on-going regulatory treatment of DSP that crosses over multiple regulatory periods.

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<sup>10</sup> The current DMEGCIS is a two part scheme. It consists of part A – the Demand Management Innovation Allowance (DMIA) and part B – the foregone revenue component.

### **6.2.1 Service standards**

The AER recognises that some DSP activities are potentially innovative in nature and the impacts on service standards might be uncertain. As such, the AER supports the AEMC recommendation that the AER consider providing temporary exemptions for DSP pilots and trials, whereby the reliability impacts will be removed. Importantly, these impacts will need to be identifiable. In implementing this measure, the AER notes that it will be unnecessary to implement this via an amendment to the NER as proposed by the AEMC, but can be achieved by amending the AER's Service Target Performance Incentive Scheme (STPIS).

### **6.2.2 Cost forecasting**

In relation to cost forecasting, the AEMC has identified that DSP costs might be uncertain given both their innovative nature and the fact that they could be weather dependent (that is, dependent on the occurrence and severity of peaky events). The AEMC intends to develop its position on this issue in the final report, but raised that one method of addressing this issue might be via amendments to the annual tariff review process for pass-throughs. The AER recognises that such options would be similar to those that currently exist for the treatment of network support agreements, within which pass throughs are permitted for under or over recovery of network support allowances. A similar approach might be able to be developed, including for some particular types of DSP as indicated by the AEMC in relation to DSP that requires consumer payments. However, the AER considers it necessary to ensure that any arrangement developed in this regard is neutral in its treatment of one form of DSP over another. Further, the AER considers that some caution is required in considering this issue, noting that uncertainties are a common feature of any forecasts made under the ex-ante and incentive based nature of the current regulatory framework. Under this framework, forecasts should be the best possible in the circumstances.

### **6.2.3 On-going regulatory treatment**

The AEMC has also considered that DNSPs might be discouraged from undertaking DSP that might be long term in nature and therefore cross multiple regulatory periods. It notes that this could arise if DNSPs are unclear how the AER will treat expenditures on such projects in future regulatory determinations. An example cited by the AEMC would be where the AER considers payments for ongoing network support agreements, based on payments made in the previous period, but this previous period might not be an accurate reflection of costs in subsequent periods for a number of reasons.

The AER is keen not to discourage DSP options where efficient, whether these be short or long term in nature. However, the AER considers that the concern identified by the AEMC might be overstated. While it is true that in undertaking its assessments of forecast capital and operating expenditure the AER will take into account actual expenditure in previous regulatory periods, these are but one of the considerations.<sup>11</sup> The AER will also assess the merits of forecast expenditure as required for that particular regulatory period. As such, where a DSNP can substantiate a case to indicate that there are sound reasons for the quantum of network support payments that it anticipates needing to make for the forecast regulatory

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<sup>11</sup> As set out under clause 6.5.6 for forecast operating expenditure and clause 6.5.7 for forecast capital expenditure

period, the DSNP will be allowed to recover those payments. This would be expected to occur regardless of whether the payments made in the previous period were substantially below those for the forecast period.

The AER considers that this approach of considering the efficiency and prudence of required expenditure at each regulatory determination to be an approach superior to implementing a rule change to require the AER to automatically accept future costs of an earlier agreement. This approach prevents the locking in of expenditure that might not be required in future periods, and will ensure that the merits of forecast expenditures are assessed without bias.

### 6.3 Network tariff structures

DSP activities undertaken by DNSPs can refer to non-tariff based initiatives such as direct load control or utilising distributed generation. Importantly, they also refer to tariff based DSP, which as noted earlier in this submission is a key enabler of efficient consumer behaviour. However, the AEMC has noted that DSNPs will be discouraged from undertaking tariff based DSP that is, implementing tariffs that reflect peak network costs and discourage consumption at such times, where its profits are dependent on the magnitude of actual consumption volumes. This will occur where a DNSP sets its tariffs based on consumption volumes, and could be exacerbated by the particular form of price control applying to these businesses, and whether they permit a DNSP to recover revenues additional to those permitted in their regulatory determinations. As such, the incentive to undertake tariff based DSP will depend on factors including:

- The form of regulatory control applying to the business
- The relationship between sales volume and the business' costs, and
- The relationship between network tariffs and efficient network costs

The AER notes at least from a theoretical perspective, a link between these factors has been assumed, such that some forms of control including price caps may create greater theoretical incentives on a business to set efficient tariff structures – that is, tariffs that reflect the impacts of additional consumption at peak times and discourage consumption at such times. In practice the AER has observed that the outcome has been quite different for businesses under price caps. The AER has observed that the price caps in NSW and Victoria have not resulted in efficient pricing. The AER has recommended the introduction of a revenue cap in NSW in its preliminary Framework and Approach paper for the 2014–19 regulatory period.<sup>12</sup> The AER considers that a revenue cap is largely neutral in relation to incentives and therefore would provide a neutral environment for a new set of pricing principles to take effect and guide the introduction of efficient (cost-reflective) network prices.

The AER observes that regardless of the decision on the form of control to apply to regulated businesses, that tariff reform will be required as previously discussed. As noted earlier in this submission, the AER supports the AEMC's recommendations to implement cost reflective tariffs across the NEM (as part of a staged approach), and the accompanying need for reform

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<sup>12</sup> AER, *Preliminary positions on the NSW Framework and Approach – Ausgrid, Endeavour Energy, Essential Energy for the regulatory control period commencing 1 July 2014*, p.47.

of the network pricing principles in the NER. These principles will need to ensure that DNSPs do in fact set cost reflective tariffs.

While the AEMC is proposing to encourage efficient tariff structures via reforms to the pricing principles (and via a meter roll-out), it has also suggested the AER consider extending the foregone revenue component of the DMEGCIS to also include tariff based DSP.<sup>13</sup> The AER considers that this reform will not be necessary to encourage efficient tariffs. As noted, tariff based DSP in effect refers to efficient tariffs or cost reflective tariffs, that is tariffs that reflect to a certain practical extent, the impacts of peak demand on additional network costs and therefore discourage consumption at peak times. Such tariffs are proposed to be required as part of the AEMC's recommendations on network pricing, together with its recommendations to roll-out necessary interval meters, and reform the network pricing principles. As such, it appears unnecessary to provide foregone revenue compensation to encourage DNSPs to undertake something that they will in effect be mandated to implement.

Further, as noted earlier in this submission, the AER considers that with the implementation of a full and higher powered incentive scheme for demand management, that the continued need for an additional incentive in the form of a foregone revenue component (for tariff or non-tariff DSP) appears unnecessary.

Finally, the AER also notes that this issue has been considered on numerous occasions in the development and application of the DMIS (now the DMEGCIS).<sup>14</sup> The AER has seen no justification to depart from its current position that it is inappropriate to provide additional compensation given that DNSPs would earn additional tariff revenue from tariff based DSP.

## 6.4 DNSP ring fencing

As DSP continues to grow in prominence, so to does the range of services available in the market and the range of participants involved in the provision of such services. This evolution of innovative and competitive offerings for DSP services is taking place at the same time that regulated businesses are also providing DSP services, given their regulatory requirements to consider such options where efficient. The AER considers this service evolution is increasingly blurring the lines between competitive and regulated services. Therefore, it is important to have appropriate arrangements in place to ensure that this apparent tension does not create adverse effects for competition, or the efficiency of regulatory allowances. As such, the AER agrees with the AEMC's recommendations that the AER consider both:

- the conditions on how and when a DSNP can directly engage with a consumer for DSP, and,
- the ability of DNSPs to own and use distributed generation.

The AER will consider these issues as part of its development of a national fencing guideline for DNSPs in the National Electricity Market.<sup>15</sup> The AER will also take into consideration submissions to the AEMC on ring fencing as part of the Power of Choice review.

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<sup>13</sup> Currently, the Part B – Foregone revenue component of the DMEGCIS only applies to non-tariff based DSP projects. Further, these projects must only be the projects implemented under the Part A – DMIA.

<sup>14</sup> For example, see: AER, *Final decision: Demand management incentive scheme (Energex, Ergon Energy, ETSA Utilities) 2010-2015*, p.11

<sup>15</sup> The AER has to date published a positions paper in relation to the development of a national ring-fencing guideline. AER, *Positions paper – Electricity distribution ring-fencing guideline*, September 2012.